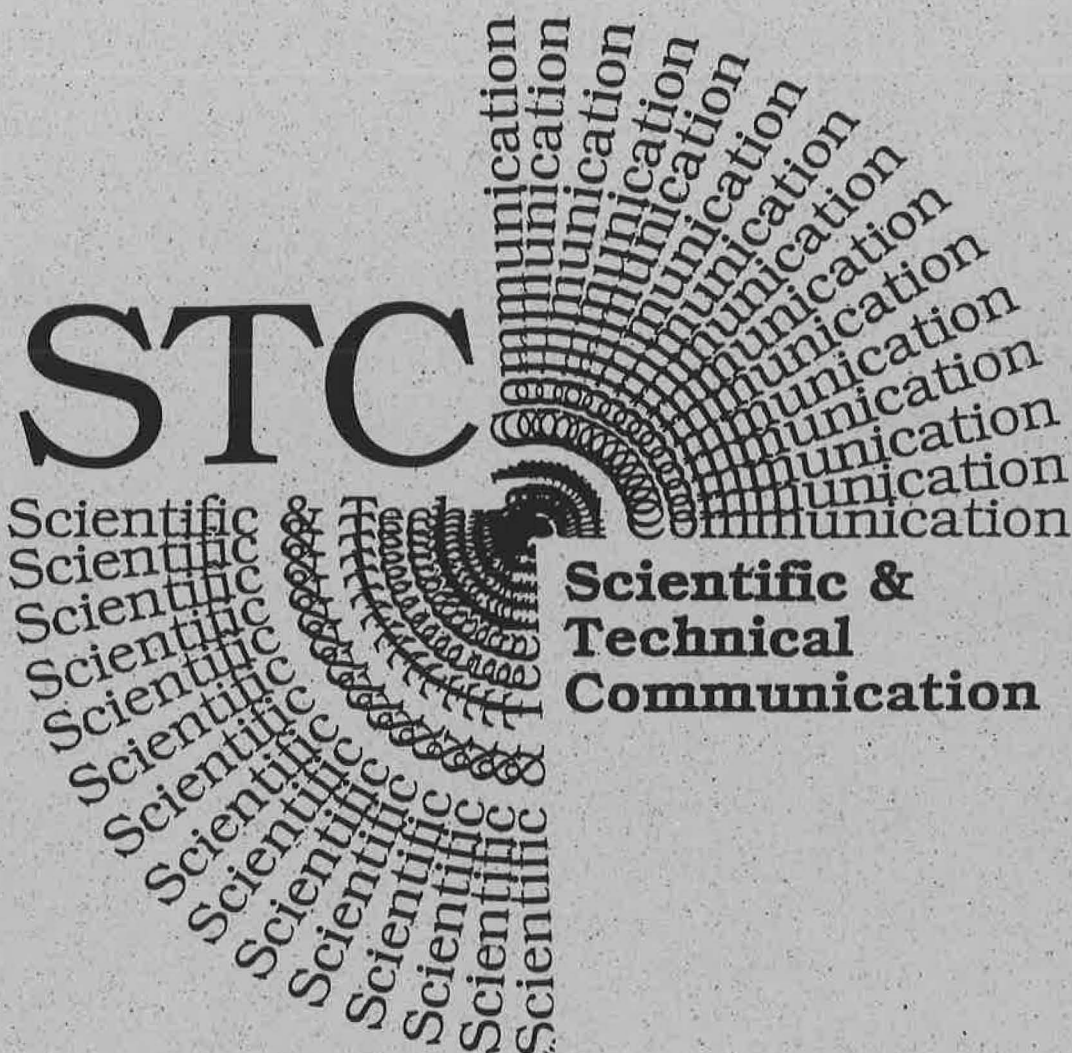


*Undergraduate Guide to the  
Scientific and Technical Communication Major*

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1994-95

University of Minnesota

**For general information about the  
B.S. in Scientific and Technical  
Communication**

**call (612) 624-4761  
(612) 624-3445**

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Revised June, 1989 by Kathy E. Carter.

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## **Introduction to Scientific and Technical Communication**

This guide has been written to help answer many of the commonly asked questions concerning the Scientific and Technical Communication program at the University of Minnesota. It includes information about the profession and the major, college admission requirements, your academic responsibilities and requirements needed for graduation, as well as general information about the University and different organizations associated with the profession.

Remember, this is only an unofficial guide. It cannot answer all of your questions. Your success in the program will be enhanced if you use this guide in conjunction with meetings with your adviser.

The Scientific and Technical Communication program at the University of Minnesota is located on the St. Paul campus in the Department of Rhetoric, a part of the College of Agriculture. The program at the University of Minnesota is one of approximately 70 programs in the United States offering an undergraduate degree. We are considered a leader in the field for educating and training scientific and technical communicators. Our graduates are in demand, our placement rate is high, and our program is growing.

The program at the University is flexible and gives you versatility so you can move into many different technical or management areas. The demand for trained, effective communicators increases each year.

## **Overview of the Field**

### ***What is scientific and technical communication?***

According to the International Society for Technical Communication, scientific and technical communication is defined as "all processes by which humans convey meaning about the development and use of technology." In essence, scientific and technical communication involves the gathering, analyzing, and distributing of scientific and technical information efficiently and accurately for specific audiences.

### ***What do scientific and technical communicators do?***

Scientific and technical communicators work as writers, trainers and developers, technical editors, or as developers of computer-based instructional systems. Sometimes a scientific and technical communicator will perform more than one of these jobs in his or her workplace. The writer's job may consist of writing policy and procedure manuals, computer documentation, and information packets, or producing computer instructional systems, newsletters, technical articles or marketing materials. Trainers and developers may instruct employees in new procedures or computer applications. The telecommunication industry is employing scientific and technical communicators who can write scripts, design data bases, design and write computer documentation, research audiences, and select the most effective communication channels to reach target audiences.

### ***Where do scientific and technical communicators work?***

Scientific and technical communicators work in a variety of fields. They may work in industry, business, service organizations, or government. For example, some scientific and technical communicators work in agribusiness or for agricultural extension services, some work in the computer industry, some work in medical fields, and still others are in the telecommunication industry. Some scientific and technical communicators work as free lancers or for communication consulting firms on a contractual basis in a variety of areas.

***What skills should I have or learn to succeed in this profession?***

The skills necessary for success in this profession include strong writing and editing, oral communication, visual communication, and computer usage skills. Also, as a professional you will need a sound knowledge and understanding of the goals, methods, and concepts involved in math and technology, as well as in a specific scientific area.

Personal qualities that will help you to succeed in this field include a curiosity about things scientific or technical, a synthesizing mind, the ability to explain difficult subjects simply but accurately, and a desire to work with people.

## **Overview of the Major**

***What is the Scientific and Technical Communication Major?***

The Scientific and Technical Communication major is for students who are interested in pursuing a career as a scientific and technical communicator and have an interest in communication skills and science and technology. The major aim of this program is to provide a sound background in two major categories: communication and science/technology. An outline of the key content and experiences in each category are listed below.

### **COMMUNICATION**

- Skills in writing and editing
- Skills in effective small group and oral communication
- Practice with graphics and development of visual presentation skills
- Knowledge of page layout and design principles
- Knowledge of culture, values, technology, and organizational communication problems and strategies
- Background in communication theory and research strategies

### **SCIENCE AND TECHNOLOGY**

- An understanding of math concepts and computer technology
- Expertise in a specific scientific or technical area

## **Admission to the College of Agriculture**

***What are the admission requirements for the College of Agriculture...***

The Scientific and Technical Communication program is offered through the College of Agriculture on the St. Paul Campus of the University of Minnesota. To enter the program, you must first be admitted to the College of Agriculture.

***-If you are a high school student?***

For information about starting as an new Freshman, contact the College of Agriculture's Prospective Student Services at 624-4748 for entry requirements and prerequisites.

You may seek exception to certain requirements if you can provide information indicating promise of academic success. Apply by submitting an Application for Undergraduate Admission.

***- if you are transferring from a college or university other than the University of Minnesota?***

You apply by submitting an application for admission to the College of Agriculture. The general requirements for entrance by transfer include a minimum cumulative grade point average of 2.00 (where A=4.00, B=3.00, C=2.00, D=1.00, N or F=0.00), a mathematics background at least equal to that required of high school graduates, and at least two years of a high school language.

You may seek exception to these requirements if you can provide information indicating promise of academic success.

After you have applied for and been accepted as a transfer student, the Office of Admissions and the College of Agriculture Office will evaluate all previous college work according to the standards of the University and the College of Agriculture. You will then be provided with a Transfer Credit Evaluation showing how your previous work has been evaluated and which requirements have been fulfilled.

***-if you are transferring from within  
the University of Minnesota system?***

As a transfer student, you will be required to complete all specific course and area distribution requirements of the program regardless of the number of credits accepted for transfer.

If you are transferring from another college from within the Twin Cities campus of the University of Minnesota, you must meet the entrance requirements of the College of Agriculture as given previously. Apply for transfer at the Office of Admissions on the campus where you are currently registered or last attended classes.

***-if you are returning to college after  
working for several years?***

If you were a student at the Twin Cities campus and are returning to the University of Minnesota, you need to apply for a transfer at the Office of Admissions on the campus where you last attended classes. If you attended a different college or university you follow the instructions given previously for transferring from another college or university. To be accepted in either case, you must meet the entrance requirements of the College of Agriculture.

For more information about applying to the College of Agriculture or requests for applications, contact the following office:

College of Agriculture Office  
277 Coffey Hall  
University of Minnesota  
1420 Eckles Avenue  
St. Paul, MN 55108  
or call (612)624-3045

***When do I submit my application to the College of Agriculture?***

The deadlines for submitting applications to the College of Agriculture are:

Fall quarter admission	July 15
Winter quarter admission	November 1
Spring quarter admission	February 1

Be sure to consult the College of Agriculture Bulletin for details on college requirements and deadlines.



## **The Advising System**

*How can you find out more about this major?*

The advising system for the Scientific and Technical Communication major involves an initial viewing of a videotape to introduce you to the major. If you are interested in pursuing the major, you will then work with a pre-major adviser while completing the prerequisites for admission to the major. Once admitted into the major, you will work with a faculty adviser to plan your course of study.

### **Pre-major Status**

If you are interested in scientific and technical communication, contact the Scientific and Technical Communication program office at (612) 624-4761 to arrange to see a five minute videotape introducing you to careers in the field and program requirements (this video can be sent to you in the mail). After you have seen the video, if you have general questions about the field or the program, contact the pre-major adviser at 625-4710.

If you want more information about applying to the program, contact the College of Agriculture Prospective Student Office at (612) 624-3045. They will do an unofficial transcript evaluation and make an appointment for you with the STC pre-major adviser. The pre-major adviser will then answer any questions you still have and can help you understand admission procedures to major status in the Scientific and Technical Communication program. The pre-major adviser will guide you in meeting the prerequisites for applying to the major. This adviser can also assist you in making formal application to the major. You will work with this adviser until you are formally admitted to the program.

***What is an advising portfolio?*****Advising Portfolio**

Upon admission to the College of Agriculture, you will be given an advising portfolio. This portfolio is intended to provide an opportunity for you to analyze and synthesize your experiences from your academic work, relevant jobs, and outside projects. These portfolios will also aid you and your adviser in assessing the knowledge and experiences already gained, as well as what you will still need to do to fulfill your requirements to qualify for entry into the major.

The purpose of the portfolio is to keep an ongoing list of the objectives you have met and a record of your courses and experiences. The portfolio will help guide you to courses needed, as well as provide you with an easily accessible record that you can integrate into your resume and cover letters when you begin to look for jobs in your field.

***Who will be your major advisor?*****Major Status**

Once you have attained full-major status, you will be assigned to a faculty member who is a certified adviser. Your major adviser will help you select the best sequence of courses to meet your educational and career objectives. You will meet with your adviser at least once per quarter to discuss the courses you plan to take for the next quarter and how your previous course experiences have helped you to meet the learning objectives described in the advising portfolio.

## Admission to the Scientific and Technical Communication Major

### ***What are the entrance requirements to the Scientific and Technical Communication Major?***

Admission to the College of Agriculture does not automatically admit you to the Scientific and Technical Communication major. Rather, you enter at pre-major status. To be admitted to the program (i.e., full major status), the following are required:

- 35 prerequisite credits (upon acceptance into the major, these credits also apply to your major requirements)
- marketing portfolio, which includes two forms:
  - application form
  - pre-major checklist
- all college transcripts
- letter of intent
- 3-5 writing samples
- 1-2 graphic/visual samples

### ***What courses should you take before you apply?***

You must have completed 35 credits of required pre-scientific and technical communication courses as follows:

- 3 credits in rhetorical theory (Rhet 3700)
- 8 credits in basic rhetoric, English, or composition
- 8 credits in physical and biological sciences
- 8 credits in social science
- 8 credits in math, computer science, or engineering

### ***Please note:***

While you only need a 2.00 GPA to be admitted to the College of Agriculture, a 2.50 GPA is required in the 35 prerequisite credits for acceptance to the major. Obtain the pre-major checklist form from the STC program office to list these classes and figure your GPA for the 35 prerequisite credits.

***How do you apply?***

During the quarter preceding the one you wish to enroll as a full scientific and technical communication major, you must submit a marketing portfolio. This portfolio will include the application form, completed pre-major checklist, letter of intent, official college transcripts, and your writing/visual samples. Unless otherwise specified, deadlines for submitting applications are as follows:

Fall quarter admission	April 15
Winter quarter admission	October 15
Spring quarter admission	January 27

Application forms and pre-major checklists may be obtained from:

Scientific and Technical Communication Program  
201 Haecker Hall  
1364 Eckles Ave  
St. Paul, MN 55108  
or call (612) 624-4761

***What transcripts are needed?***

Submit transcripts of all college work. This includes all work done at the University of Minnesota, as well as at other colleges. These may be unofficial transcripts but they should show all coursework through the most recent quarter completed.

***Where do I turn in my marketing portfolio?***

Turn in your marketing portfolio to the program secretary in room 201 Haecker Hall.

***Note:***

Remember, you cannot enroll for internship credit until you have submitted your portfolio and have been accepted into the STC program as a full major.

***What do you say in a letter of intent?***

Address your letter of intent to the Director of the Undergraduate Major and state your reasons for selecting scientific and technical communication as a profession. A letter of intent is your opportunity to tell the Admissions Committee why you would be an excellent addition to the Scientific and Technical Communication program. In the letter, you highlight the aspects of your previous work and experiences reflecting strengths and skills needed for this field. Any of the following may be included:

- academic work pertinent to the major
- applicable extracurricular or job experiences (in communications, computers, technology, etc.)
- explanation of how you became interested in scientific and technical communication
- reasons why you want to pursue a major in this field
- choice of potential emphasis area
- career goals (workplace or job position desired)
- how you see yourself in the role of a technical communicator
- how the program will help you achieve your goals
- discussion of your other interests (travels, hobbies, etc.) providing skills useful to a potential scientific and technical communicator

**This is your first chance to sell yourself to the Admissions Committee; prepare this letter as if you were applying for a job.**

***What goes into a "marketing portfolio?"***

A marketing portfolio will be used throughout your career as a scientific and technical communicator and is an important factor in getting a job. This is your opportunity to begin assembling one. Start with:

- papers from classes that are samples of your best writing. Do not submit them in the form they were returned to you; retype them, correcting any mistakes the instructor noted.
- written work you have had published is another excellent addition.
- examples of graphic work such as projects from art, drafting, or design classes, or photographs, slides, or videos you have done for work or pleasure. Any creative work done in academic or non-academic settings is acceptable.
- an updated resume (optional).

It is acceptable to produce examples for your portfolio that have not been used elsewhere.

Plan to include three to five writing samples and one to two visul/graphic samples in the portfolio. Your samples should be sufficiently various and interesting to give the Admissions Committee a clear view of your ability and potential.

*Presentation is important.* Submit your work in good condition. Inserting it into a portfolio or three ring binder with looseleaf plastic pages displays your work neatly and professionally. Submit slides in an 8 1/2 x 11 inch transparent slide carrier. This format allows you to remove and add to your portfolio as your expertise increases. Start saving examples now of everything you produce in classes or at your job.



***When should you apply?***

You will apply for full major status when you have completed the 35 prerequisite credits and have assembled materials for your portfolio. Apply during the quarter preceding the one you wish to enter as a major. You should apply before completing 100 quarter credits. Work with the pre-major advisor to determine which quarter to apply and to get assistance in preparing your marketing portfolio.

***When will you learn if you've been accepted?***

The Admissions Committee, composed of members of the Scientific and Technical Communication faculty and the Director of the Undergraduate Program, will meet after each deadline and evaluate all portfolios. Each applicant will be accepted, rejected, or re-assigned pre-major status according to the following:

- academic record: overall GPA and performance in the 35 required credit hours
- letter of intent
- communication skills and experience as demonstrated in the portfolio

The Scientific and Technical Communication Program reserves the right to limit the number of students admitted to the program. Applicants will be notified by letter of the decision of the Admissions Committee within three weeks after each deadline.

***Please note:***

It is important to keep in mind that you cannot graduate from the College of Agriculture unless you are officially enrolled in a major in the college. It is in your best interests to complete your STC pre-major requirements and apply for acceptance in the major as soon as possible.

In addition to meeting College of Agriculture residency requirements, as a degree candidate in Scientific and Technical Communication you must earn 30 of your last 45 credits in the major following the quarter you are accepted into the major.

## Transfer Students

### Graduation Requirements in the Major--

#### ***What are the graduation requirements for the B.S. in Scientific and Technical Communication?***

Students majoring in the undergraduate program in Scientific and Technical Communication must complete requirements in each of the areas listed below. Required classes are listed. Use the Bulletin of the College of Agriculture in choosing electives to fulfill the remaining credit hours. Your advisor can offer guidance when planning your schedule.

#### **A. Communication, Language, Symbolic Systems (29 credits minimum)**

Majors in Scientific and Technical Communication must be able to communicate effectively in environments in which technical information is processed and exchanged. The following courses are required:

Rhet 1101	Writing to Inform and Persuade (4)
Rhet 1104	Library Research Methods (1)
Rhet 1151	Writing in Your Major (4)
Rhet 1222	Public Speaking (4)
Rhet 3266	Communication, Discussion in Small Group Decision Making (4)
Rhet 3562	Writing in Your Profession (4)

The environment in which scientific and technical communicators work also requires a knowledge and understanding of math and computer science. To provide a basic background, students are required to take the following courses:

Math 1031	College Algebra and Probability (4)
or Math 1051	Precalculus I (4)
One of the following:	
CSci 3101	A FORTRAN Introduction to Computer Programming (4)
CSci 3102	Introduction to Pascal Programming (4)
CSci 3113	Introduction to Programming in C (4)
IDSc 3030	Information Systems and Information Management (4)

**B. Physical and Biological Sciences**  
**(20 credits minimum)**

Since scientific and technical communicators write in environments in which technical information is developed and processed, students need an interest in and an inclination for science. By taking basic courses in physical or biological sciences, students can decide if they are sufficiently interested in scientific and technical communication.

Only science courses with laboratories will count towards this requirement. These courses should build up prerequisites for your science and technology emphasis in Area E.

Select from the following courses:

BioC 1401	Elementary Biological Chemistry (4)
Biol 1009	General Biology (5)
Biol 1103	General Botany (5)
Biol 1106	General Zoology (5)
Chem 1001	General Principles of Chemistry (4) or
Chem 1051	Chemical Principles I (4)
Chem 1002	Elementary Organic Chemistry (4) or
Chem 1052	Chemical Principles II (4)
Geo 1001	The Dynamic Earth: Introduction to Geology (4)
Geo 1021	Introduction to Geology Lab: Geology of MN (1)
MicB 3103	General Microbiology (5) (CEE only)
MicB 5105	Biology of Microorganisms (5)
Phys 1001, 05	The Physical World and Lab (4, 1)
Phys 1041	Introductory Physics (5)
Phys 1042	Introductory Physics (5)

**C. The Individual and  
Society  
(14 credits minimum)**

Scientific and technical communication students benefit from courses enabling them to understand the impact of science and technology on western culture. Possible courses that fulfill this requirement are in such fields as anthropology, economics, geography, sociology, political science, and psychology. Note that most Rhetoric Department Humanities courses can be used to fulfill Category C2. Work with your adviser in selecting a sequence of courses from the suggested courses in the Bulletin of the College of Agriculture.

Suggested courses must be from the following categories:

1. Analysis of Human Behavior and Institutions
2. Development of Civilization: Historical and Philosophical Studies (You must complete at least one course from this area.)

**D. Literature, Humanities,  
and Fine Arts  
(16 credits minimum)**

Scientific and technical communication students need liberal arts courses to help them become culturally literate and to help them learn how to form intelligent and informed decisions. In addition to the Rhetoric Department Humanities courses, other possible classes may be taken in American studies, classics, literature, music, and theatre. *Note that performance courses may not be used for Category D.* Work with your adviser in selecting a sequence of courses from the College of Agriculture Bulletin .

**E. Professional Courses in  
the Major  
(90 credits minimum)**

Students must complete a minimum number of credits for the major in a variety of competency areas. The Scientific and Technical Communication major is divided into seven areas of emphasis to reflect the communication and science and technology areas needed by the student. Certain core classes are required in each area with additional courses taken in the area you wish to emphasize further. *Students must take more than the minimum number of credits to reach the total of 90 credits required for graduation.*

**Writing and Editing Emphasis  
(14 credits minimum)**

***What are the required courses  
in the major curriculum?***

Students must have strong writing and editing skills in order to communicate effectively in this profession. Writing and editing skills are fundamental.

**Required:**

- Rhet 3565      Writing for Publication (4)
- Rhet 5560      Editing for Technical Communicators (4)

**And two of the following:**

- Rhet 5572      Procedures and Policies Manual (3)
- Rhet 5573      Grant Proposal (3)
- Rhet 5575      Newsletter (3)

**Recommended:**

- Comp 3014      Writing in the Quantitative Social Sciences (4)
- Comp 3015      Writing about Science (4)
- Comp 3027      Advanced Expository Writing (4)
- EngW 5401      Introduction to Professional Editing (4)  
(Extension only)

### **Oral Communication Emphasis (8 credits minimum)**

Students must be able to retrieve, analyze and use information that they have effectively gathered from others and present this information orally. They must be able to locate, evaluate, and integrate diverse viewpoints of project teams and their clients.

#### **Required:**

- |           |  |
|-----------|--|
| Rhet 5257 | Scientific and Technical Presentations (4)               |
| Rhet 5258 | Interviewing: Dynamics of Face-to-Face Communication (4) |

#### **Recommended:**

- |           |   |
|-----------|---|
| Spch 3201 | Introduction to Broadcasting Production (4) |
| Rhet 3254 | Advanced Public Speaking (4)                |
| Spch 3411 | Small Group Communication Theory (4)        |

### **Information Design and Management Emphasis (14 credits minimum)**

Students must be able to communicate in visual as well as verbal forms. They must be able to understand flow diagrams and models of technical components.

#### **Required:**

- |           |  |
|-----------|--|
| Rhet 1200 | Information Technology in Scientific and Technical Professions (3) |
| Rhet 3670 | Visual Rhetoric: Theories and Applications (4)                     |
| Rhet 3574 | Publications Management (3)  |
| Rhet 5581 | Document Design (4)  |



**Recomended:**

Rhet 3101	Functional Photography (4)
Rhet 3105	Corporate Video for Technical Communicators (4)
BIE 1100	Technical Drawing (3)
BIE 1101	Technical Design and Product Development (3)
BIE 1120	Communication Technology (3)
BIE 3121	Graphic Communication (3)
BIE 1122	Photography (3)
ArtS 1401	Color (4)
DHA 1300	Introduction to Design (3)

### **Communication Systems Emphasis (8 credits minimum)**

Students must understand how to communicate in several environments (business, industry, government, non-profits); therefore, they need to understand how to analyze systems of communication within these environments. Technical communicators must be able to manage human resources and provide leadership to project teams.

**Required:**

Rhet 5170	Managerial Communications (4)
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**And one of the following:**

Rhet 5165	Studies in Organizational Communication, Conflict, and Change (4)
Rhet 5400	Communication Program Planning and Evaluation (4)
Rhet 5600	Transfer of Technology (4)

**Recommended:**

Rhet 5592	Communication in Technological and Environmental Impact Assesment (4)
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Spch 3111	Leadership Communication (3)
Spch 3441	Communicating in Organizations (4)
SW 5013	Interdisciplinary Team Training in Health Services Delivery (4)

### **Communication Theory and Research Emphasis (7 credits minimum)**

Students must be able to evaluate and integrate diverse viewpoints or data. They must effectively analyze multiple audiences/clients. In order to do this they also need to acquire and analyze appropriate information about their clients.

#### **Required:**

Rhet 1220	Principles of Human Communication (4)
Rhet 3700	Rhetorical Theory: Persuasion and the Literature of Science (3)

#### **Recommended:**

Clas 1045	Basic Program in Technical Terminology and Word Study (3)
Engl 3851	The English Language (4)
Engl 3852	Aspects of the English Language (4)
Engl 5815	History of English Language (4)
Engl 5831	American English (4)
EPsy 5115	Psychology of Adult Learning (4)
EPsy 5240	Principles and Methods of Evaluation (3)
Jour 1001	Introduction to Mass Communication (4)
Ling 3001	Introduction to Linguistics (5)
Psy 3011	Introduction to Psychology of Learning (4)
Rhet 5160	Advanced College Reading (4)
Rhet 5500	Research in Communication Strategies (4)
Rhet 5531	Scientific and Technical Communication Course Development: Philosophy and Methodology (4)
Rhet 5532	Scientific and Technical Communication Course Development: Mentored Teaching (2)

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Rhet 5533	Scientific and Technical Communication Course Development: Teaching Seminar (1)
Rhet 5541	Readings in Scientific and Technical Prose (2)
Spch 3431	Role of Persuasion in the Modern World (4)
Spch 3601	Approaches to Public Discourse (4)

### **Culture, Values, and Technology Emphasis (10 credits minimum)**

Students must be able to apply a historical perspective to the role of science and technology in technical communication. They must apply global perspectives to scientific and technical issues and decisions. They must make responsible judgments on ethical and policy issues stemming from current technology and its use.

#### **Required:**

Rhet 3390	Technology, Self, and Society (4)
Rhet 3582	Senior Seminar (3)

#### **One of the following:**

Rhet 1303	Science, Religion and the Search for Human Nature (4)
Rhet 3670	Scientific Controversy (3)
Rhet 5680	Gender and Rhetoric of Science and Technology (4)

#### **Recommended:**

HMed 300x	Medicine and Disease in History (4)
HSci 17xx	Technology and Western Civilization (4)
HSci 181x	Introduction to History of Science (4)
Hum 1003	Humanities in the Modern World III (4)
Hum 3625	Science and the Humanities (4)
Phil 3601	Scientific Thought (4)
Phil 560x	Philosophy of Science (4)

### **Science and Technology Emphasis (20 credits minimum)**

While technical communicators need a general knowledge of math, science and technology, they must also develop expertise in a scientific and technical area. With the help of an adviser, you will select at least five additional classes (20 credit minimum) in a scientific or technological area to enhance your technical emphasis. Eight credits must be at the 3000 level or above. Possible areas of emphasis are:

Agricultural Science: Animals	Health Sciences
Agricultural Science: Plants	Human Ecology
Biological Science	Management Information
Cognitive Science/Psychology	Systems
Computer Science	Natural Resources
Engineering	Physical Science
Food Science/Nutrition	Vocational Education

You will package your rationale for choosing certain courses and your experiences in the courses in two places: the advising portfolio and the marketing portfolio.

### **Capstone Project (4 credits minimum)**

Rhet 5180      Internship in Technical Communication (2-6)

*4 credit minimum. Credits may be earned in 2 credit increments but no more than 6 internship credits can be applied toward the STC program. The internship cannot be completed until you are officially enrolled as a full major.*

***What is the Senior Seminar?***

As a major, you will participate in a seminar course during your senior year to provide you an opportunity to integrate and apply your educational experiences to your upcoming nonacademic work, to learn how to work with others in a cooperative environment, and to build your self-confidence as you begin your job search. Specifically, you will discuss ethical issues and problems related to scientific and technical communication, and will examine the problem-solving strategies of professional communicators. Several group projects will be completed as well as individual work.

***What is involved in an internship?***

You must complete at least one internship experience as part of your degree program. You cannot register for an internship until you are officially enrolled in the major; therefore pre-majors are not eligible. Internships can be taken in two credit increments to reach the minimum of four internship credits required for graduation. The most internship credits you may earn is six credits. For the internship experience, you will need to complete the following:

- an internship proposal detailing the duration, hours, duties, etc. of the internship
- an internship journal of work experiences
- final internship report
- evaluation letter from the internship supervisor

You can learn about internship opportunities by reading the notices posted on bulletin boards in the department, talking with your adviser and other instructors, and through personal research.

After you have been admitted to the major, ask your adviser for an **Internship Guide** detailing the internship enrollment procedures and internship requirements. You will not receive credit for an internship if you do not follow these procedures.

**F. Electives**

You will complete the remaining credits of the 190 required for graduation with electives of your choice.

## ***New Freshmen***

### **Graduation Requirements in the Major**

***What are the graduation requirements for the B.S. in STC if you are entering as a freshman?***

**Liberal Education Requirements (effective fall 1994 for students enrolling with 38 credits or less)**

**Physical and Biological Sciences  
(12 credit minimum)**

**History and Social Sciences  
(12 credit minimum)**

**Arts and Humanities  
(12 credit minimum)**

**Mathematical Thinking  
(4 credits minimum)**

#### **Liberal Education Requirements**

A liberal education introduces you to the modes of inquiry and subject matter of the major branches of knowledge, including factual information and theoretical or artistic constructs that form their foundations. To these ends, study by all undergraduate students on the Twin Cities campus is guided by a common framework.

#### **The Diversified Core Curriculum**

The Diversified Core includes courses in the following four areas. See the College of Agriculture Bulletin for details.

**Requirement:** A minimum of three courses totaling at least 12 credits, including one course with a laboratory or field experience in the physical sciences and one course with a laboratory or field experience in the biological sciences.

**Requirement:** A minimum of three courses totaling at least 12 credits, including one course with historical perspective.

**Requirement:** A minimum of three courses totaling at least 12 credits including courses in two of the following: literature, philosophical perspective, and visual or performing arts.

**Requirement:** A minimum of one course totaling at least four credits.

#### **The Designated Themes of Liberal Education**

Each of the three themes focuses on an issue of compelling importance to the nation and the world, the understanding of which is informed by many disciplines and interdisciplinary fields of knowledge.



**Requirement:** A minimum of six course (or five courses if one includes an approved practicum), including one course in each of the following:

**Cultural Diversity**

Understanding the roles gender, ethnicity and race <sup>play</sup> place in structuring the human experience in and developing the social and cultural fabric of most human endeavors.

**International Perspectives**

Comprehension of the ways in which you are part of a rapidly changing global environment dominated by the internationalization of most human endeavors.

**Environment**

Knowledge of the interaction and interdependence of the bio-physical systems of the natural environment and human cultural and social systems.

**Citizenship and Public Ethics**

Reflection on and determination of a clearer sense of your present and future civic relationships and your obligations to the community.

**Foundation and Major Requirements**

**Foundation Requirements**

Rhet 1101	Writing to Inform and Persuade
Rhet 1104	Library Research Methods (1)
Rhet 1151	Writing in Your Major (4)
Rhet 1222	Public Speaking (4)
Rhet 3266	Communication, Discussion in Small Group Decision Making (4)
Rhet 3562	Writing in Your Profession (4)

**Professional Requirements**

The remaining professional requirements, comprising seven core areas, are identical to those required of transfer students. See pages 19-25 for details.

**Electives**

Electives to reach 180 credits for graduation with a bachelor of science degree.

## **Computer Labs**

Students in the program have access to a variety of computing facilities with an assortment of software and hardware. You are encouraged to develop skills essential to the effective use of available computing equipment as many of your classes will require computer use skills such as email and word processing.

The Rhetoric Department also supports a multimedia lab. This facility is used for specific courses and for research.

## **Library Facilities**

The University library system includes the St. Paul Campus Library and the Biomedical, Wilson, and Walter Libraries in Minneapolis. These libraries house a large collection of books and journals, including those relevant to the study of communication, science, and technology. In addition there are a number of specialized school and departmental libraries.

## **Housing**

The University maintains a housing office which has listings of both on-campus and off-campus housing. For assistance write or call:

Director, Housing Office  
Comstock Hall East  
210 Delaware St. SE  
Minneapolis, MN 55455  
(612) 624-2994

Students currently in the program are another valuable source of housing information.

## **Financial Aid**

Financial aid for students is available in the form of grants, loans, scholarships, and work-study. To apply for financial aid through the Office of Student Financial Aid, students must obtain an application packet and complete the American College Testing Program's Family Financial Statement (ACT-FFS) and all other required documents.

Some of the types of financial aid available are

- Pell Grant Program
- Minnesota State Scholarship and Grant-in-Aid Program
- College Work-Study Program
- Perkins Loan Program
- Guaranteed Student Loan (GSL)
- Supplemental Loans for Students (SLS)
- Loans for Parents (PLUS)
- Student Educational Loan Fund (SELF)
- University scholarships, grants, and loans

For an application packet and more information, contact the Office of Student Financial Aid. The St. Paul campus office, which offers limited service is in

197 Coffey Hall  
1420 Eckles Avenue  
St. Paul, MN 55108

The Minneapolis campus office is in

210 Fraser Hall  
106 Pleasant Street SE  
Minneapolis, MN 55455  
(612) 624-1665.

## Faculty

<b>Becker, Sandra J.</b>	M.A. in English, Pennsylvania State University
<b>Bennett, J. Michael</b>	Ed.D. in Reading Education, University of Georgia M.A.E. in English Education, University of Florida
<b>Breneman, Donald L.</b>	M.A. in Journalism, University of Minnesota
<b>Duin, Ann Hill</b>	Ph.D. in English Education, University of Minnesota M.A. in English Education, University of Minnesota
<b>Ferguson, Richard W.</b>	Ph.D. in American Studies, University of Minnesota M.A. in English, North Dakota State University
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<b>Jorn, Linda</b>	M.S. in Scientific and Technical Communication, University of Minnesota
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<b>Marchand, William M.</b>	Ph.D. in Theater History and American Studies, Univ. of Minn. M.A. in Theater and Classical Literature, University of Minn.

<b>McDowell, Earl E.</b>	Ph.D. in Speech Communication, University of Nebraska M.A. in Speech Communication, West Virginia University
<b>Mikelonis, Victoria M.</b>	Ph.D. in Language and Literature, Indiana University of Pennsylvania M.A. in Language and Literature, Indiana University of Pennsylvania
<b>Montgomery, Paul</b>	Ph.D. in English, University of Kansas M.A. in English Language and Literature, Boston University
<b>Scanlan, Thomas</b>	Ph.D. in American Studies, University of Minnesota M.A. in English Literature, Cornell University
<b>Schuelke, David</b>	Ph.D. in Communication, Purdue University M.A. in Rhetoric, University of Illinois
<b>Sperbeck, John</b>	M.S. in Agricultural Journalism, University of WI-Madison
<b>Wahlstrom, Billie J.</b>	Ph.D. in American Literature, University of Michigan M.A. in English, University of Michigan
<b>Walzer, Arthur E.</b>	Ph.D. in English, University of Minnesota M.A. in English, University of Minnesota
<b>Wharton, Keith</b>	Ph.D. in Educational Testing and Research, University of Northern Colorado M.A. in Administration, University of Northern Colorado